

#### ABSTRACT OF THE DISCLOSURE

The invention provides methods for peripheralizing CD34<sup>+</sup> cells, including hematopoietic stem cells. In a first aspect, the method comprises the step of blocking VLA-4 antigen on the surface of CD34<sup>+</sup> cells. In a second aspect, the method comprises blocking VLA-4 antigen on the surface of CD34<sup>+</sup> cells and stimulating the CD34<sup>+</sup> cells to proliferate in vivo.